Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division
Name of Work:Improvements To Roads and Drains Of Balaji Layout,Bhadrappa Layout And Surrounding Areas In Ward No.08 Kodigehalli

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
2	**Earth work excavation by manual means** for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3) (V-I.No 1.4,Page No-5 PWD SR 2021-22)								
	Basic Rate	186.00							
	Loading And Unloading	118.00							
	Sub Total	304.00							
	Area Weightage 10%	30.40							
	Total Rate	**334.40**							
	Ward No-08								
	Rcc Drain								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00	1.10	1.10	665.50			
	JR Rd	2	140.00	1.10	1.05	323.40			
	Balaji Layout								
	7th Cross Rd	2	120.00	1.10	1.00	264.00			
	For Culverts	13	6.00	1.50	1.00	117.00			
						1369.90	**Cum**	**334.40**	**458094.56**
3	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) **Mix 1:3:6 (M10) Using 40 mm** nominal size graded crushed coarse aggregates (V-1, P.No-15, I No-2.1.3 of PWD SR 2021-22)								
	Basic Rate	**5752.00**							
	Area Weightage 10%	**575.20**							
	Total Rate	**6327.20**							
	Ward No-08								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00	1.10	0.15	90.75			
	JR Rd	2	140.00	1.10	0.15	46.20			
	Balaji Layout								
	7th Cross Rd	2	120.00	1.10	1.00	264.00			
	For Culverts	13	6.00	1.50	0.15	17.55			
						418.50	**Cum**	**6327.20**	**2647933.20**
4	Supplying, **Fitting and Placing un-coated TMT bar** Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22)								
	Basic Rate	**103329.00**							

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Area Weightage 10%	**10332.90**							
	Total Rate	**113661.90**							
	For RCC Drain, 60kg/Sqm	1	345.30	60.00		20718.00			
	For RCC Culvert, 90kg/Sqm	1	36.66	90.00		3299.40			
						24.02	**Tn**	**113661.90**	**2729863.32**
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) **M20 Design Mix Using 20 mm nominal** size graded crushed coarse aggregates (V-1,P.No.17, I.No.2.4.2 of PWD SR 2021-22)								
	Basic Rate	**6256.00**							
	5% for Centring	**312.80**							
	Sub Total	**6568.80**							
	Area Weightage 10%	**656.88**							
	Total Rate	**7225.68**							
	Ward No-08								
	Rcc Drain Raft								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00	0.90	0.15	74.25			
	JR Rd	2	140.00	0.90	0.15	37.80			
	Balaji Layout								
	7th Cross Rd	2	120.00	0.90	0.15	32.40			
	Rcc DrainWall								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	4	275.00	0.15	0.65	107.25			
	JR Rd	4	140.00	0.15	0.60	50.40			
	Balaji Layout								
	7th Cross Rd	4	120.00	0.15	0.60	43.20			
						345.30			
	Culvert Raft	13	6.00	1.20	0.20	18.72			
	Culvert Wall	26	6.00	0.23	0.50	17.94			
						36.66			
						381.96	**Cum**	**7225.68**	**2759920.73**
6	Providing and fixing **precast reinforced cement concrete covering slabs of 10Cm thick** made of M20 with OPC cement,with 20mm and down size graded granite metal coarse aggregate @0.70 mixed, Inculding providing and removing centering, shuttering, strutting propping etc., for edges of slabs with TMT steel (Fe500) cost of all materials, labour, all lead and lift, HOM of machinery, curing, including cost of reinforcement etc., complete as directed by the Engineer in charge of the work								
	Data Rate	**2072.00**							
	Ward No-08								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00	0.90		495.00			
	JR Rd	2	140.00	0.90		252.00			

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Balaji Layout								
	7th Cross Rd	2	120.00	0.90		216.00			
						963.00	**Sqm**	**2072.00**	**1995336.00**
7	Providing and fixing **RCC precast cover slab of 230mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Data Rate	**5037.00**							
	For Culverts	13	6.00	1.20		93.60			
						93.60	**Sqm**	**5037.00**	**471463.20**
8	Providing and laying in position **plain cement concrete** for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. **Mix 1:3:6 (M10) Using 20 mm** nominal size graded crushed coarse aggregates (V-I, No-2.1.4, P.No-15 of PWD SR 2021-22).								
	Basic rate	**5926.00**							
	Area Weightage 10%	**592.60**							
	Total	**6518.60**							
	Ward No-08								
	For Below Kerb Stone								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00	0.20	0.10	11.00			
	JR Rd	2	140.00	0.20	0.10	5.60			
						16.60	**Cum**	**6518.60**	**108208.76**
9	Providing and fixing pre cast **solid cement concrete kerb stones** made out of M20 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete as directed by the Engineer in Charge of the work (Approved Rate)								
	Approved rate	**507.00**							
	Ward No-08								
	For Kerb Stone								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00			550.00			
	JR Rd	2	140.00			280.00			
						830.00			
	Deduct Existing 10 % Kerb					83.00			
						747.00	**M**		
						1660.00	**Nos**	**507.00**	**841620.00**
10	**Painting two coats** after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces (V-III, P.No.56, I.No.8.10 of PW, PWD SR 2021-22)								
	Basic Rate	85.00							
	Area Weightage 10%	8.50							
	Total Rate	**93.50**							
	Ward No-08								

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	275.00		0.35	192.50			
	JR Rd	2	140.00		0.35	98.00			
						290.50	**Sqm**	**93.50**	**27,161.75**
11	Earth work in surface **excavation by mechanical means** for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work ((V-I, P.No-8, I No-1.12 of PWD SR 2021-22)								
	Basic Rate	**65.00**							
	Area Weightage 10%	6.50							
	Total Rate	**71.50**							
	Ward No-08								
	Asphalt Road								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	1	130.00	5.90	0.25	191.75			
	Edge Correction/ Damage Portion/Bad reaches								
	Shyanbhog Narayanappa Layout								
		6	4.00	2.00	0.25	12.00			
		4	6.00	1.00	0.25	6.00			
		3	2.00	1.20	0.25	1.80			
		3	1.50	1.20	0.25	1.35			
		8	4.00	1.60	0.25	12.80			
		5	2.00	1.20	0.25	3.00			
		3	1.50	1.20	0.25	1.35			
		3	1.50	1.20	0.25	1.35			
		5	4.00	1.60	0.25	8.00			
		5	2.00	1.20	0.25	3.00			
		3	1.50	1.20	0.25	1.35			
		3	1.50	1.20	0.25	1.35			
		6	1.50	1.20	0.25	2.70			
	Cut Portion								
	1st Cross Rd	1	151.00	0.60	0.25	22.65			
	JR Rd	1	140.00	0.60	0.25	21.00			
	Cross Rd	1	175.00	0.60	0.25	26.25			
	Balaji Layout								
	7th Cross Rd	1	235.00	1.00	0.25	58.75			
						376.45	**Cum**	**71.50**	**26,916.18**

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
12	Providing, laying, spreading and compacting graded stone aggregate to **wet mix macadam** specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density (V-III, P.No-24,I No-4.27A)of PWD SR 2021-22).								
	Basic Rate	**2394.00**							
	Area Weightage 10%	239.40							
	Total Rate	**2633.40**							
	Ward No-08								
	Asphalt Road								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	1	130.00	5.90	0.225	172.58			
	Edge Correction/ Damage Portion/Bad reaches								
	Shyanbhog Narayanappa Layout								
		6	4.00	2.00	0.225	10.80			
		4	6.00	1.00	0.225	5.40			
		3	2.00	1.20	0.225	1.62			
		3	1.50	1.20	0.225	1.22			
		8	4.00	1.60	0.225	11.52			
		5	2.00	1.20	0.225	2.70			
		3	1.50	1.20	0.225	1.22			
		3	1.50	1.20	0.225	1.22			
		5	4.00	1.60	0.225	7.20			
		5	2.00	1.20	0.225	2.70			
		3	1.50	1.20	0.225	1.22			
		3	1.50	1.20	0.225	1.22			
		6	1.50	1.20	0.225	2.43			
	Cut Portion								
	1st Cross Rd	1	151.00	0.60	0.225	20.39			
	JR Rd	1	140.00	0.60	0.225	18.90			
	Cross Rd	1	175.00	0.60	0.225	23.63			
	Balaji Layout								
	7th Cross Rd	1	235.00	1.00	0.225	52.88			
						338.81	**Cum**	**2633.40**	**892209.09**
13	Providing and applying **primer coat** with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means. (V-III, P.No-29,I No-5.1(i) of PWD SR 2021-22).								
	Basic Rate	**44.00**							
	Area Weightage 10%	4.40							
	Total Rate	**48.40**							
	Ward No-08								
	Asphalt Road								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	1	130.00	5.90		767.00			
	Edge Correction/ Damage Portion/Bad reaches								

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Shyanbhog Narayanappa Layout								
		6	4.00	2.00		48.00			
		4	6.00	1.00		24.00			
		3	2.00	1.20		7.20			
		3	1.50	1.20		5.40			
		8	4.00	1.60		51.20			
		5	2.00	1.20		12.00			
		3	1.50	1.20		5.40			
		3	1.50	1.20		5.40			
		5	4.00	1.60		32.00			
		5	2.00	1.20		12.00			
		3	1.50	1.20		5.40			
		3	1.50	1.20		5.40			
		6	1.50	1.20		10.80			
	Cut Portion								
	1st Cross Rd	1	151.00	0.60		90.60			
	JR Rd	1	140.00	0.60		84.00			
	Cross Rd	1	175.00	0.60		105.00			
	Balaji Layout								
	7th Cross Rd	1	235.00	1.00		235.00			
						1505.80	**Sqm**	**48.40**	**72,880.72**
14	Providing and applying **tack coat** with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.20 kg/m2 on the prepared bituminous surface cleaned with mechanical broom.(V-III, P.No-29,I No-5.3(i) of PWD SR 2021-22).								
	Basic Rate	**12.00**							
	Area Weightage 10%	1.20							
	Total Rate	**13.20**							
	Ward No-08								
	Asphalt Road								
	For Profile correction								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd Continue	1	154.00	5.80		893.20			
	1st Cross Rd	1	151.00	6.20		936.20			
	JR Rd	1	140.00	5.80		812.00			
	Cross Rd	1	175.00	5.80		1015.00			
	Balaji Layout								
	7th Cross Rd	1	235.00	6.00		1410.00			
						5066.40			
	Consider 10%					**506.64**			
	For BC								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	1	284.00	5.80		1647.20			
	1st Cross Rd	1	151.00	6.20		936.20			
	JR Rd	1	140.00	5.80		812.00			
	Cross Rd	1	175.00	5.80		1015.00			
	Balaji Layout								

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	7th Cross Rd	1	235.00	6.00		1410.00			
						6327.04	**Sqm**	**13.20**	**83,516.93**
15	Providing and laying **Dense Graded Bituminous Macadam** with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects. (V-III, P.No-33,I No-5.12C of PWD SR 2021-22).								
	Basic Rate	**9889.00**							
	Area Weightage 10%	988.90							
	Total Rate	**10877.90**							
	Ward No-08								
	New Asphalt Road								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	1	130.00	5.90	0.05	38.35			
	For Profile correction								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd Continue	1	154.00	5.80	0.05	44.66			
	1st Cross Rd	1	151.00	6.20	0.05	46.81			
	JR Rd	1	140.00	5.80	0.05	40.60			
	Cross Rd	1	175.00	5.80	0.05	50.75			
	Balaji Layout								
	7th Cross Rd	1	235.00	6.00	0.05	70.50			
						253.32			
	Profile correction 10%					**25.33**			
	Edge Correction/ Damage Portion/Bad reaches								
	Shyanbhog Narayanappa Layout								
		6	4.00	2.00	0.05	2.40			
		4	6.00	1.00	0.05	1.20			
		3	2.00	1.20	0.05	0.36			
		3	1.50	1.20	0.05	0.27			
		8	4.00	1.60	0.05	2.56			
		5	2.00	1.20	0.05	0.60			
		3	1.50	1.20	0.05	0.27			
		3	1.50	1.20	0.05	0.27			
		5	4.00	1.60	0.05	1.60			
		5	2.00	1.20	0.05	0.60			
		3	1.50	1.20	0.05	0.27			
		3	1.50	1.20	0.05	0.27			
		6	1.50	1.20	0.05	0.54			
	Cut Portion								
	1st Cross Rd	1	151.00	0.60	0.05	4.53			
	JR Rd	1	140.00	0.60	0.05	4.20			
	Cross Rd	1	175.00	0.60	0.05	5.25			
	Balaji Layout								

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	7th Cross Rd	1	235.00	1.00	0.05	11.75			
						36.94			
						100.62	**Cum**	**10877.90**	**1094556.05**
16	Providing and laying **Bituminous Concrete with 40/60 TPH** capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (V-III, P.No.36, I.No.5.16C of PWD SR 2021-22).								
	Basic Rate	**11531.00**							
	Area Weightage 10%	1153.10							
	Total Rate	**12684.10**							
	Ward No-08								
	Asphalt Road								
	For BC								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	1	284.00	5.80	0.04	65.89			
	1st Cross Rd	1	151.00	6.20	0.04	37.45			
	JR Rd	1	140.00	5.80	0.04	32.48			
	Cross Rd	1	175.00	5.80	0.04	40.60			
	Balaji Layout								
	7th Cross Rd	1	235.00	6.00	0.04	56.40			
						232.82	**Cum**	**12684.10**	**2953061.43**
17	Providing and laying of **hot applied thermoplastic compound** 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes.(V-III,I No-8.15, P.No-57 of KPWD SR 2021-22)								
	Basic Rate	**478.00**							
	Area Weightage 10%	47.80							
	Total Rate	**525.80**							
	Ward No-08								
	Asphalt Road								
	Shyanbhog Narayanappa Layout								
	2nd Main Rd	2	284.00	0.10		56.80			
	1st Cross Rd	2	151.00	0.10		30.20			
	JR Rd	2	140.00	0.10		28.00			
	Cross Rd	2	175.00	0.10		35.00			
	Balaji Layout								
	7th Cross Rd	2	235.00	0.10		47.00			
						197.00	**Sqm**	**525.80**	**103582.60**
18	Cost of Haulage Excluding Loading and Unloading Taking output 25 t load and lead 10 km = 250 t.km (V-III Page No.3, Item No.1.4C of PWD SR 2021-22)								
	Basic Rate	**5.00**							
	8KM Lead = 12*8	96.00							
	Area Weightage 10%	9.60							
	Total Rate	**105.60**							
	Qty frm Item No-2		1369.9	1.28		1753.47			
	Qty frm Item No-11		376.5	1.28		481.86			
						2235.33	**t.Km**	**105.60**	**236050.64**

Sl No	Description of items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
								Total Construction Cost	17502375.15
								Sub Total-1	17502375.15
								12% GST for Construction Cost	2100285.02
								Towards DPR & PMC Cost including GST	396800.00
								Sub Total -2	19999460.16
								Utility Shifting,Miscellaneous and Rounding off	539.84
	GRAND TOTAL								20000000.00

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2021-2022, Data rates and issue rates dated 07-04-2022

Assistant Engineer
Ward No-8
BBMP Bangalore

Asst. Executive Engineer,
Kodigehalli Sub Division
BBMP Bangalore

Executive Engineer,
Bytarayanapura Division
BBMP Bangalore

SILICON CONSULTING ENGINEERS